



FLEX-6308

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#13/Dec
7 EVMS
6-18-03

Applicant: Pennace et al.

Group No: 2831

Serial No.: 10/017,490

Examiner: Chau N. Nguyen

Filed: 12/14/2001

For: CONDUCTIVE COMPOSITE
FORMED OF A THERMOSET
MATERIALDECLARATION

I, John R. Pennace, declare as follows:

1. I am one of the inventors of the above-identified application.
2. I am a graduate of Tufts University with a MS degree in Chemistry. I am currently employed by FLEXcon Company, Inc. of Spencer, Massachusetts ("FLEXcon"). FLEXcon is the assignee of the above-identified application.
3. During the course of my employment at FLEXcon, I have held the following positions: Lab Manager from 1978 to 1981; Technical Service Manager from 1981 to 1984; and Manager, New Ventures from 1984 to the present time.
4. As a result of my work at FLEXcon, I have gained extensive experience in the design and manufacture of pressure sensitive film products. Such products typically incorporate monolayer and/or multilayer polymeric films, the latter having been produced by coextrusion with or without tie layers, or by lamination with or without adhesive interlayers.

5. I have read and understand the disclosure in WO 97/37054 (Wagner). Wagner's objective is

"to provide barrier films with improved barrier characteristics and a method of making the same"
(Page 2, lines 16-18)

The barrier characteristics referred to in Wagner relate to impermeability to the elements such as water and atmospheric gases. (Page 3, lines 21-22).

6. Wagner achieves his objective by vapor depositing a barrier coating on a high energy surface (EVOH or amorphous nylon) adhered to a polymeric substrate, either by lamination with an adhesive, or by coextrusion with a tie layer.

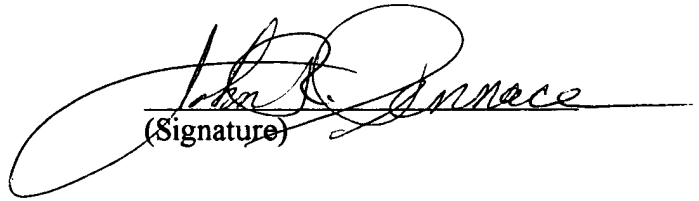
7. It is well known that elastomeric adhesives have very poor barrier properties. For example, the adhesives identified at page 6, lines 11-13 of the present application have WVTRs in the 20-60 range, which is roughly 800-2500 times the maximum of 0.024 listed in Wagner's Table 1 on page 12. It would be counterproductive and thus it would not occur to those skilled in the art to introduce such highly permeable adhesives into the Wagner composites. The same logic is applicable to the tie layers employed in the Wagner coextrudates.

8. It is also well known that the tie layer in a coextrudate should have a melt index (the measure of viscous flow of a polymer when heated to a temperature above its glass transition temperature) close to that of the other components of the coextrudate. A tie layer with a melt index low enough to provide interlayer slip in accordance with the present invention would tend to migrate to the surface of the composite during coextrusion, thus undermining its intended role as an adherent between the substrate and high surface energy layer.

9. It follows, therefore, that the adhesives and tie layers disclosed in Wagner would not be of the type that would accommodate relative movement between adhered films occasioned by flexure of the composite.

The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: June 2, 2003


(Signature)